



Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4568444
Siekmann-Order-No.: 8035036

CERTIFICATE-NO.: 040-1

Lurgi-Item-No.	Lurgi-I.D.	Pieces	Remarks
040	10SPP046	1	

Date 21.03.05

Siekmann Econosto GmbH & Co. KG



QM Meinold Oestreich

If you need any Spare Parts or
technical support please contact:

Siekmann Econosto GmbH & Co. KG
P.O. Box 150440, D-44344 Dortmund
Freigrafenweg 2, D-44357 Dortmund
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SPECIALTY VALVES RESEARCH, S.A.
VALVES MANUFACTURER



CERTIFICATE acc. to
EN 10204 - 3.1.B.

CERT No.: SVR-3254-04

REV.:

DATE: 04/02/05

CONFORMITY AND GUARANTEE TEST CERTIFICATE

CLIENT: **SIKMANN** P.O. No.: **9005009OP** LURGI ITEM: **00040** SERIAL No.:
LURGI Ref.: **4568444-000/1.69690/136** V.E. Ref.: **10005-4019**
SVR Ref.: **OF-3254** LURGI IDENT.NO: **10SPP046** QUANTITY: **1**
FIGURE NO.: **1.600 BW** DESCRIPTION: **16" -600 Lbs.** ENDS: FLANGE ()
GATE VALVE BUTT WELD (X)

DESIGN AND TEST ACCORDING TO:

API 600	X	API 598	X	BS 6755 Part. 1 rate B	DIN 3230 - 3	MSS - SP 82	NACE MR 0175
OTHERS : B16.25 B16.10							

TYPE OF TEST	SHELL & PACKING 100%	SEAT (WATER) 100%HP	BACKSEAT (WATER) 100% HP	SEAT (AIR) LP
DURATION (Sec)	300	120	60	120
PRESSURE (Kg/cm ²)	150	110	110	4-7
RESULT	SATISFACTORY	SATISFACTORY	SATISFACTORY	SATISFACTORY
MANOMETER SERIAL.: SVR-1098				

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that all valves described above are in compliance with purchase order and specification requirements. This test report represents the actual attributes of the valves furnished and the test results are in compliance with the applicable specification and purchase order requirements.

TEST REPORT EN 10204 - 3.1.B.

BODY & BONNET	ASTM A 216 WCB		
WEDGE	ASTM A 216 WCB + STL Overlay		
BODY RING	ASTM A 105 + STL Overlay		
STEM	ASTM A 105		
PACKING	GRAPHITE		
GASKET	SPW 304 + GRAPHITE		
BOLTING	A 193 B7 / A 194 Gr.2H		

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that the above items are in full compliance with the listed material specifications and all purchase order requirements, giving a guarantee of the products against any fabrication defects for a period of 12 months from expedition date.

DIMENSIONAL EXAMINATION: ACCEPTABLE	VISUAL EXAMINATION: MSS SP 55 ACCEPTABLE	MARKING: MSS SP 25 ACCEPTABLE
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FOUNDRY MILL CERTIFICATE NUMBERS

BODY, BONNET, & WEDGE: **W6327**

QUALITY CONTROL MANAGER: 04 FEB 2005	CLIENT'S INSPECTOR:
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 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	MATERIAL CERTIFICATES CERTIFICADO DE INSPECCION s/ INSPECTION CERTIFICATE Acc. To		Nº/Nr.: W6327
			FECHA:
			DATE: 17/12/04

Cliente/Cliet.: VALVES ENTREPRISE LAS MERCEDES NO. 23 - 6º EDIFICIO ABRA NO.1 48930 LAS ARENAS -BIZKAIA-	Pedido Nº Purchase Order: P-10005-4019		Cantidad: Quantity: 3
	Anagrama del Fabricante / sello del Inspector: Manufacturer's Logo / Inspector stamp:		

TRATAMIENTO TERMICO HEAT TREATMENT	Normalizado: ☒	Normalizado+Revenido ☐	Templado+Revenido: ☐	Solubilización: ☐
	Normalized:	Normalized+Tempered	Quenched+Tempered:	Solution:

H.T. CONDICION CONDITION T.T.	NORMALIZED 980 °C x 3H	MODO DE FUSION: INDUCTION MELTING TYPE OF MELTING:
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DENOMINACION DE LA PIEZA: CASTING DENOMINATION:	Gate Body	16" – 600 Lbs	Heat No.:	K40053
	Gate Bonnet	16" – 600 Lbs	Heat No.:	K40058
	Gate Wedge	16" – 600 Lbs	Heat No.:	K40055

CALIDAD DE ACERO: STEEL QUALITY:	ASTM A 216 WCB	CONDICIONES DE ENTREGA: TERMS OF DELIVERY:	NACE MR 01-75:00
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ANÁLISIS QUÍMICO – CHEMICAL ANALYSIS											Nº de Piezas Ner. Pieces	Peso kgs. Weight
COLADA HEAT No.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V		
Solicitado (Norma) Requirements (max)	0.30	0.60	1.00	0.040	0.045	0.50	0.50	0.20	0.30	0.03		
K40053	0.20	0.32	0.61	0.022	0.017	0.07	0.098	0.013	0.024	0.001	1	
K40058	0.20	0.38	0.82	0.021	0.022	0.06	0.037	0.015	0.019	0.001	1	
K40055	0.22	0.32	0.85	0.021	0.023	0.07	0.055	0.022	0.025	0.001	1	

PROPIEDADES MECANICAS / MECHANICAL PROPERTIES Acc. To ASTM A 370										
COLADA HEAT No.	Probeta Test Sample	Diametro (mm) Diameter Ø	L. Elástico Yield Point N/mm²	Resistencia Tensile Str. N/mm²	Alargamiento Elongation %	Estricción Red. of Area %	Dureza Hardness HB	Resiliencia Impact Test (ISO V Prob) J; T 20 °C		
Solicitado Requirements	Lo = 4D	12.5	250	485-655	22	35	232	27 J		
K40053	Lo = 4D	12.5	338	500	26	44	153	36	33	45
K40058	Lo = 4D	12.5	305	495	29	39	151	42	31	43
K40055	Lo = 4D	12.5	390	495	29	39	154	31	40	39
Insp. Visual y C. Dimensional Visual Insp. And Dimens check		Ensayo Magnaflux Magnaflux test		Insp. Por Gammagrafia Gammagraphic Inspection		Ensayo de Presión Pressure Test		Insp. Por Ultrasonidos Ultrasonic Test		
S/ MSS-SP-55		Satisfactory								

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los **certificados 3.1.B.** correspondientes s/ **EN 10204**, que obran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that the material described above, has been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding **3.1.B. certificates** acc. to **EN 10204**, which are filed in our factory, emitted by our homologated suppliers.

Quality Control Department

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RADIOGRAPHIC EXAMINATION REPORT FOR CASTINGS

Procedure:	ASME B 16.34	Report No.:	W6327
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Page: 1 / 2

Customer :	VALVES ENTREPRISE, S.L.	Contract:	P-10005-4019
Description :	GATE BODY	Extension of Test:	BW-ENDS
Drawing :	600LB 16"	Radiographed at:	Shop: ☒ Field: ☐
Material :	WCB Heat Number: K40053		

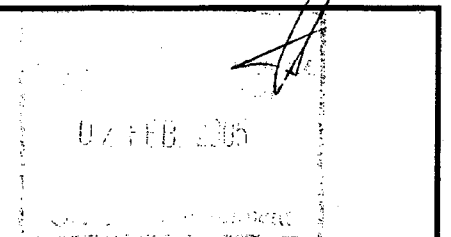
X Rays KV	7 RAYS	Isotope :	IR 192	Curies:	40	Focal Spot Size:	3x3
Film Type, Brand and Size :	KODAK AA400,360x100			IQT:	ASTM 1C.16		
Screens Type and Thickness :	Pb,0.05/0.20			Material Thickness:	50 - 70		
Density :	1.5-4.0	Source Film Distance :	450MM	Exposure Time:	5 min - 30 s		

Evaluation standard for steel castings radiographic examination (See Back)	Acceptance Standard
Sketch of geometric arrangement of radiographs and location markers in attached form	ASME B 16.34

Identification	Interval	Viewing	Evaluation	Observed Defects							
				Porosity	Sand	Shrinkage	Cracks	Hot Tears	Others	Superf	Accepted
R1	1-2		II	/	/	/	/	/	/	I	OK
R2	2-3		II	/	/	/	/	/	/	I	OK
R3	3-4		II	/	/	/	/	/	/	I	OK
R4	4-5		II	/	/	/	/	/	/	I	OK
R5	5-1		II	A1	/	/	/	/	/	I	OK
R6	6-7		II	/	/	/	/	/	/	I	OK
R7	7-8		II	/	/	/	/	/	/	I	OK
R8	8-9		II	/	/	/	/	/	/	I	OK
R9	9-10		II	/	/	/	/	/	/	I	OK
R10	10-6		II	/	/	/	/	/	/	I	OK
R11	11-12		II	/	/	CA2	/	/	/	II	OK
R12	12-13		II	/	/	/	/	/	/	I	OK
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*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los certificados correspondientes, que abran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that material described above, have been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding certificates, which are field in our factory, emitted by homologated suppliers.



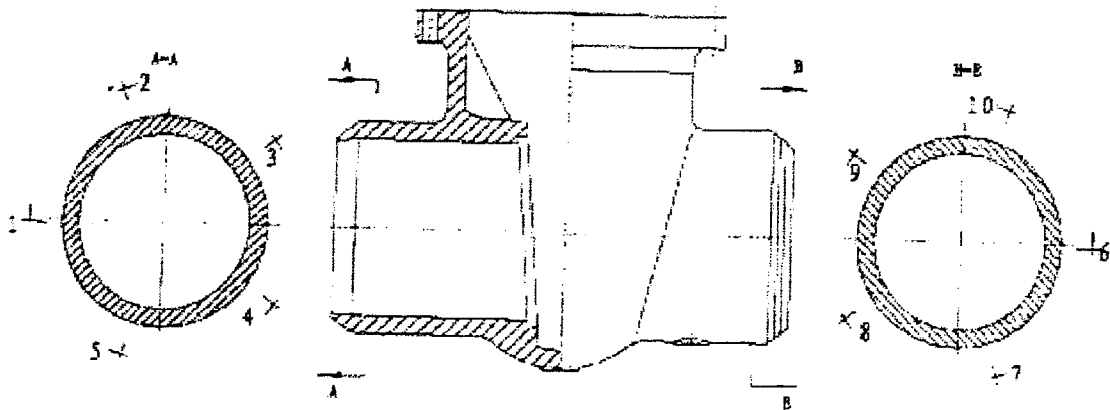
 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
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	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC MAP

Page: 2 / 2

Procedure:	ASME B 16.34		
Customer:	VALVES ENTREPRISE, S.L.	Heat:	K40053
Contract:	P-10005-4019	Part No.	W6327
Drawing:	600LB 16"	Descriptions:	GATE BODY

Radiography No.	Type and Size of Film	Thickness	Source	I.Q.I.	Focus-Film Distance	Density	Back Shielding
R1-R12	KODAK AA400	50 - 70	IR 192	ASTM 1C.1f	450MM	1.5-4.0	Pb
*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****





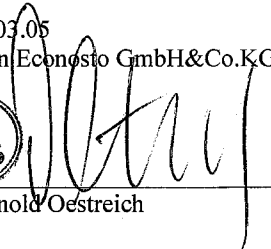
Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4568444
Siekmann-Order-No.: 8035036

CERTIFICATE-NO.: 050-1

Lurgi-Item-No.	Lurgi-I.D.	Pieces	Remarks
050	10SPP047	1	

Date 21.03.05
Siekmann Econosto GmbH & Co. KG


QM Meinold Oestreich

If you need any Spare Parts or
technical support please contact:

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Fax : 0049 - 231 937 5188
E-mail: info@siekmann-econosto.de
Web: www.siekmann-econosto.de

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER		CERTIFICATE acc. to EN 10204 - 3.1.B.	CERT No.: SVR-3254-05 REV.: DATE: 04/02/05
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CONFORMITY AND GUARANTEE TEST CERTIFICATE

CLIENT: SIKMANN	P.O. No.: 90050090P	LURGI ITEM: 00050	SERIAL No.:
LURGI Ref.: 4568444-000/1.69690/136	V.E. Ref.: 10005-4019		
SVR Ref.: OF-3254	LURGI IDENT.NO: 10SPP047	QUANTITY: 1	
FIGURE NO.: 1.600 BW	DESCRIPTION: 16" -600 Lbs. GATE VALVE	ENDS: FLANGE () BUTT WELD (X)	

DESIGN AND TEST ACCORDING TO:

API 600	X	API 598	X	BS 6755 Part. 1 rate B		DIN 3230 - 3		MSS - SP 82		NACE MR 0175	
OTHERS : B16.25 B16.10											

TYPE OF TEST	SHELL & PACKING 100%	SEAT (WATER) 100%HP	BACKSEAT (WATER) 100% HP	SEAT (AIR) LP
DURATION (Sec)	300	120	60	120
PRESSURE (Kg/cm ²)	150	110	110	4-7
RESULT	SATISFACTORY	SATISFACTORY	SATISFACTORY	SATISFACTORY
MANOMETER SERIAL.: ----- SVR-1098-----				

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that all valves described above are in compliance with purchase order and specification requirements. This test report represents the actual attributes of the valves furnished and the test results are in compliance with the applicable specification and purchase order requirements.

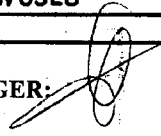
TEST REPORT EN 10204 - 3.1.B.

BODY & BONNET	ASTM A 216 WCB		
WEDGE	ASTM A 216 WCB + STL Overlay		
BODY RING	ASTM A 105 + STL Overlay		
STEM	ASTM A 105		
PACKING	GRAPHITE		
GASKET	SPW 304 + GRAPHITE		
BOLTING	A 193 B7 / A 194 Gr.2H		

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that the above items are in full compliance with the listed material specifications and all purchase order requirements, giving a guarantee of the products against any fabrication defects for a period of 12 months from expedition date.

DIMENSIONAL EXAMINATION: ACCEPTABLE	VISUAL EXAMINATION: MSS SP 55 ACCEPTABLE	MARKING: MSS SP 25 ACCEPTABLE
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FOUNDRY MILL CERTIFICATE NUMBERS

BODY, BONNET, & WEDGE: W6328	
QUALITY CONTROL MANAGER:  04 FEB 2005	CLIENT'S INSPECTOR:



SPECIALTY VALVES RESEARCH, S.A.
VALVES MANUFACTURER

MATERIAL CERTIFICATES
CERTIFICADO DE INSPECCION s/
INSPECTION CERTIFICATE Acc. To

Nº/Nr.: W6328

FECHA:

DATE: 17/12/04

Cliente/Cliet.:

VALVES ENTREPRISE
LAS MERCEDES NO. 23 - 6º
EDIFICIO ABRA NO.1
48930 LAS ARENAS -BIZKAIA-

Pedido Nº

Purchase Order: **P-10005-4019**

Cantidad:

Quantity: 3

Anagrama del Fabricante / sello del Inspector:
Manufacturer's Logo / Inspector stamp:



TRATAMIENTO TERMICO
HEAT TREATMENT

Normalizado:



Normalized:

Normalizado+Revenido



Normalized+Tempered

Templado+Revenido:



Quenched+Tempered:

Solubilización:



Solution:

H.T. CONDICION
CONDITION T.T.

NORMALIZED 980 °C x 3H

MODO DE FUSION:

INDUCTION MELTING

TYPE OF MELTING:

DENOMINACION DE LA PIEZA:
CASTING DENOMINATION:

Gate Body

16" - 600 Lbs

Heat No.:

K40057

Gate Bonnet

16" - 600 Lbs

Heat No.:

K40052

Gate Wedge

16" - 600 Lbs

Heat No.:

K40057

CALIDAD DE ACERO:
STEEL QUALITY:

ASTM A 216 WCB

CONDICIONES DE ENTREGA:
TERMS OF DELIVERY:

NACE MR 01-75:00

ANÁLISIS QUÍMICO - CHEMICAL ANALYSIS

COLADA HEAT No.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V		Nº de Piezas Ner. Pieces	Peso kgs. Weight
Solicitado (Norma) Requirements (max)	0.30	0.60	1.00	0.040	0.045	0.50	0.50	0.20	0.30	0.03			
K40057	0.21	0.40	0.83	0.019	0.020	0.05	0.021	0.016	0.018	0.001		2	
K40052	0.21	0.33	0.72	0.019	0.020	0.05	0.016	0.018	0.013	0.001		1	

PROPIEDADES MECANICAS / MECHANICAL PROPERTIES Acc. To ASTM A 370

COLADA HEAT No.	Probeta Test Sample	Diametro (mm) Diameter Ø	L. Elástico Yield Point N/mm²	Resistencia Tensile Str. N/mm²	Alargamiento Elongation %	Estricción Red. of Area %	Dureza Hardness HB	Resiliencia Impact Test (ISO V Proba) J; T 20 °C		
Solicitado Requirements	Lo = 4D	12.5	250	485-655	22	35	232	27 J		
K40057	Lo = 4D	12.5	295	485	28	38	150	44	42	40
K40052	Lo = 4D	12.5	275	490	27	37	149	35	45	31
Insp. Visual y C. Dimensional Visual Insp. And Dimens check		Ensayo Magnaflux Magnaflux test		Insp. Por Gammagrafia Gamma-graphic Inspection		Ensayo de Presión Pressure Test		Insp. Por Ultrasonidos Ultrasonic Test		
S/ MSS-SP-55		Satisfactory								

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los **certificados 3.1.B.** correspondientes s/ **EN 10204**, que obran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that the material described above, has been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding **3.1.B. certificates** acc. to **EN 10204**, which are field in our factory, emitted by our homologated suppliers.

Quality Control Department

04 FEB 2005

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RADIOGRAPHIC EXAMINATION REPORT FOR CASTINGS

Procedure:	ASME B 16.34	Report No.:	W6328
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Page: 1 / 2

Customer : VALVES ENTREPRISE, S.L.	Contract: P-10005-4019
Description : GATE BODY	Extension of Test: BW-ENDS
Drawing : 600LB 16"	Radiographed at: Shop: ☒
Material : WCB Heat Number: K40057	Field: ☐

X Rays KV	Γ RAYS	Isotope : IR 192	Curies: 40	Focal Spot Size: 3x3
Film Type, Brand and Size :		KODAK AA400,360x100		
Screens Type and Thickness :		Pb,0.05/0.20		
Density : 1.5-4.0		Source Film Distance : 450MM		Material Thickness: 50 - 70
		Exposure Time: 5 min - 30 s		

Evaluation standard for steel castings radiographic examination (See Back)	Acceptance Standard
Sketch of geometric arrangement of radiographs and location markers in attached form	ASME B 16.34

Identification	Interval	Viewing	Evaluation	Observed Defects								Superf.	Accepted
				Porosity	Sand	Shrinkage	Cracks	Hot Tears	Others				
R1	1-2		II	/	/	/	/	/	/			I	OK
R2	2-3		II	/	/	CA2	/	/	/			II	OK
R3	3-4		II	/	/	CB2	/	/	/			II	OK
R4	4-5		II	/	/	/	/	/	/			I	OK
R5	5-6		II	/	/	CA2	/	/	/			II	OK
R6	6-1		II	/	/	/	/	/	/			I	OK
R7	7-8		II	/	B2	/	/	/	/			II	OK
R8	8-9		II	/	/	/	/	/	/			I	OK
R9	9-10		II	/	/	/	/	/	/			I	OK
R10	10-6		II	/	/	/	/	/	/			I	OK
R11	11-12		II	/	/	CB2	/	/	/			II	OK
R12	12-7		II	/	/	/	/	/	/			I	OK
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Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los certificados correspondientes, que abran en nuestro poder, emitidos por los suministradores homologados.

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07 FEB 2006

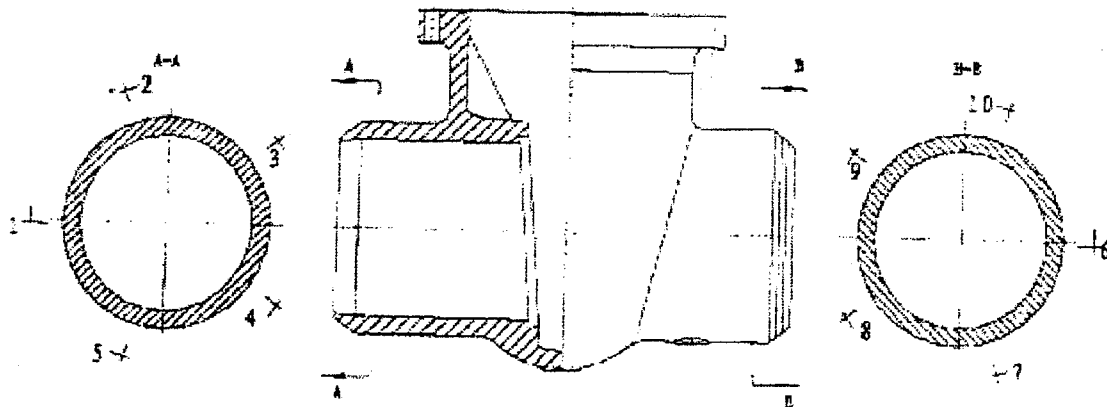
 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
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	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC MAP

Page: 2 / 2

Procedure:	ASME B 16.34		
Customer:	VALVES ENTREPRISE, S.L.	Heat:	K40057
Contract:	P-10005-4019	Part No.:	W6328
Drawing:	600LB 16"	Descriptions:	GATE BODY

Radiografy No.	Type and Size of Film	Thickness	Source	I.Q.I.	Focus-Film Distance	Density	Back Shielding
R1-R12	KODAK AA400	50 - 70	IR 192	ASTM 1C.1E	450MM	1.5-4.0	Pb
*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****





Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4568444
Siekmann-Order-No.: 8035036

CERTIFICATE-NO.: 060-1

Lurgi-Item-No.	Lurgi-I.D.	Pieces	Remarks
060	10SPP049	1	

Date 21.03.05
Siekmann Econosto GmbH & Co. KG



QM Meinold Oestreich

If you need any Spare Parts or
technical support please contact:

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Freigrafenweg 2, D-44357 Dortmund
Germany

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Fax : 0049 - 231 937 5188
E-mail: info@siekmann-econosto.de
Web: www.siekmann-econosto.de

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER		CERTIFICATE acc. to EN 10204 - 3.1.B.	CERT No.: SVR-3254-06
			REV.:
			DATE: 04/02/05

CONFORMITY AND GUARANTEE TEST CERTIFICATE

CLIENT: SIEMANN	P.O. No.: 9005009OP	LURGI ITEM: 00060	SERIAL No.:
LURGI Ref.: 4568444-000/1.69690/136	V.E. Ref.: 10005-4019		
SVR Ref.: OF-3254	LURGI IDENT.NO: 10SPPO49	QUANTITY: 1	
FIGURE NO.: 1.600 BW	DESCRIPTION: 16" -600 Lbs. GATE VALVE	ENDS: FLANGE () BUTT WELD (X)	

DESIGN AND TEST ACCORDING TO:

API 600	X	API 598	X	BS 6755 Part. 1 rate B		DIN 3230 - 3		MSS - SP 82		NACE MR 0175	
OTHERS : B16.25 B16.10											

TYPE OF TEST	SHELL & PACKING 100%	SEAT (WATER) 100%HP	BACKSEAT (WATER) 100% HP	SEAT (AIR) LP
DURATION (Sec)	300	120	60	120
PRESSURE (Kg/cm ²)	150	110	110	4-7
RESULT	SATISFACTORY	SATISFACTORY	SATISFACTORY	SATISFACTORY
MANOMETER SERIAL.: SVR-1098				

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that all valves described above are in compliance with purchase order and specification requirements. This test report represents the actual attributes of the valves furnished and the test results are in compliance with the applicable specification and purchase order requirements.

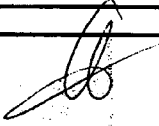
TEST REPORT EN 10204 - 3.1.B.

BODY & BONNET	ASTM A 216 WCB		
WEDGE	ASTM A 216 WCB + STL Overlay		
BODY RING	ASTM A 105 + STL Overlay		
STEM	ASTM A 105		
PACKING	GRAPHITE		
GASKET	SPW 304 + GRAPHITE		
BOLTING	A 193 B7 / A 194 Gr.2H		

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that the above items are in full compliance with the listed material specifications and all purchase order requirements, giving a guarantee of the products against any fabrication defects for a period of 12 months from expedition date.

DIMENSIONAL EXAMINATION: ACCEPTABLE	VISUAL EXAMINATION: MSS SP 55 ACCEPTABLE	MARKING: MSS SP 25 ACCEPTABLE
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FOUNDRY MILL CERTIFICATE NUMBERS

BODY, BONNET, & WEDGE: W6329	
QUALITY CONTROL MANAGER:   	CLIENT'S INSPECTOR:

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	MATERIAL CERTIFICATES CERTIFICADO DE INSPECCION s/ INSPECTION CERTIFICATE Acc. To		Nº/Nr.: W6329
			FECHA:
			DATE: 17/12/04

Cliente/Client.: VALVES ENTREPRISE LAS MERCEDES NO. 23 - 6º EDIFICIO ABRA NO.1 48930 LAS ARENAS -BIZKAIA-	Pedido Nº Purchase Order: P-10005-4019		Cantidad: Quantity: 3
	Anagrama del Fabricante / sello del Inspector: Manufacturer's Logo / Inspector stamp:		

TRATAMIENTO TERMICO HEAT TREATMENT	Normalizado: ☒	Normalizado+Revenido: ☐	Templado+Revenido: ☐	Solubilización: ☐
	Normalized:	Normalized+Tempered	Quenched+Tempered:	Solution:

H.T. CONDICION CONDITION T.T.	NORMALIZED 980 °C x 3H	MODO DE FUSION: INDUCTION MELTING TYPE OF MELTING:
--	------------------------	--

DENOMINACION DE LA PIEZA: CASTING DENOMINATION:	Gate Body	16" – 600 Lbs	Heat No.:	K40060
	Gate Bonnet	16" – 600 Lbs	Heat No.:	K40055
	Gate Wedge	16" – 600 Lbs	Heat No.:	K40056

CALIDAD DE ACERO: STEEL QUALITY:	ASTM A 216 WCB	CONDICIONES DE ENTREGA: TERMS OF DELIVERY:	NACE MR 01-75:00
---	----------------	---	------------------

ANÁLISIS QUÍMICO – CHEMICAL ANALYSIS											Nº de Piezas Ner. Pieces	Peso kgs. Weight
COLADA HEAT No.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V		
Solicitado (Norma) Requirements (max)	0.30	0.60	1.00	0.040	0.045	0.50	0.50	0.20	0.30	0.03		
K40060	0.20	0.45	0.80	0.025	0.018	0.05	0.012	0.014	0.011	0.001	1	
K40055	0.22	0.32	0.85	0.021	0.023	0.07	0.055	0.022	0.025	0.001	1	
K40056	0.20	0.40	0.70	0.011	0.016	0.07	0.155	0.017	0.016	0.001	1	

PROPIEDADES MECANICAS / MECHANICAL PROPERTIES Acc. To ASTM A 370										
COLADA HEAT No.	Probeta Test Sample	Diametro (mm) Diameter Ø	L. Elástico Yield Point N/mm ²	Resistencia Tensile Str. N/mm ²	Alargamiento Elongation %	Estricción Red. of Area %	Dureza Hardness HB	Resiliencia Impact Test (ISO V Prob) J; T 20 °C		
Solicitado Requirements	Lo = 4D	12.5	250	485-655	22	35	232	27 J		
K40060	Lo = 4D	12.5	290	500	27	45	156	30	32	31
K40055	Lo = 4D	12.5	390	495	29	39	154	31	40	39
K40056	Lo = 4D	12.5	310	530	27	37	150	29	39	31
Insp. Visual y C. Dimensional Visual Insp. And Dimens check		Ensayo Magnaflux Magnaflux test		Insp. Por Gammaografia Gammaographic Inspection		Ensayo de Presión Pressure Test		Insp. Por Ultrasonidos Ultrasonic Test		
S/ MSS-SP-55		Satisfactory								

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los **certificados 3.1.B.** correspondientes s/ **EN 10204**, que obran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that the material described above, has been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding **3.1.B. certificates** acc. to **EN 10204**, which are field in our factory, emitted by our homologated suppliers.

Quality Control Department

04 FEB. 2005

2101 177 000001

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
	PHONE:	+ (34) 94. 455. 51. 51
	FAX:	+ (34) 94. 455. 51. 50
	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC EXAMINATION REPORT FOR CASTINGS

Procedure: ASME B 16.34 Report No.: W6329

Page: 1 / 2

Customer : VALVES ENTREPRISE, S.L.	Contract: P-10005-4019
Description : GATE BODY	Extension of Test: BW-ENDS
Drawing : 60OLB 16"	Radiographed at: Shop ☒ Field ☐
Material : WCB Heat Number: K40060	

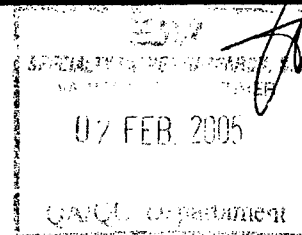
X Rays KV : 1 RAYS	Isotope : IR 192	Curies: 40	Focal Spot Size: 3x3
Film Type, Brand and Size : KODAK AA400,360x100	IQI: ASTM 1C.16		
Screens Type and Thickness : Pb,0.05/0.20	Material Thickness: 50 - 70		
Density : 1.5-4.0	Source Film Distance : 450MM	Exposure Time: 5 min - 30 s	

Evaluation standard for steel castings radiographic examination (See Back)	Acceptance Standard
Sketch of geometric arrangement of radiographs and location markers in attached form	ASME B 16.34

Identification	Interval	Viewing	Evaluation	Observed Defects								Accepted
				Porosity	Sand	Shrinkage	Cracks	Hot Tears	Others	Summary		
R1	1-2		II	/	/	/	/	/	/	I	OK	
R2	2-3		II	/	/	/	/	/	/	I	OK	
R3	3-4		II	/	/	/	/	/	/	I	OK	
R4	4-5		II	/	/	/	/	/	/	I	OK	
R5	5-6		II	/	/	/	/	/	/	I	OK	
R6	6-1		II	/	/	/	/	/	/	I	OK	
R7	7-8		II	/	/	/	/	/	/	I	OK	
R8	8-9		II	/	/	/	/	/	/	I	OK	
R9	9-10		II	/	/	/	/	/	/	I	OK	
R10	10-6		II	/	/	/	/	/	/	I	OK	
R11	11-12		II	/	/	/	/	/	/	I	OK	
R12	12-7		II	/	/	/	/	/	/	I	OK	
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*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los certificados correspondientes, que abran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that material described above, have been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding certificates, which are field in our factory, emitted by homologated suppliers.



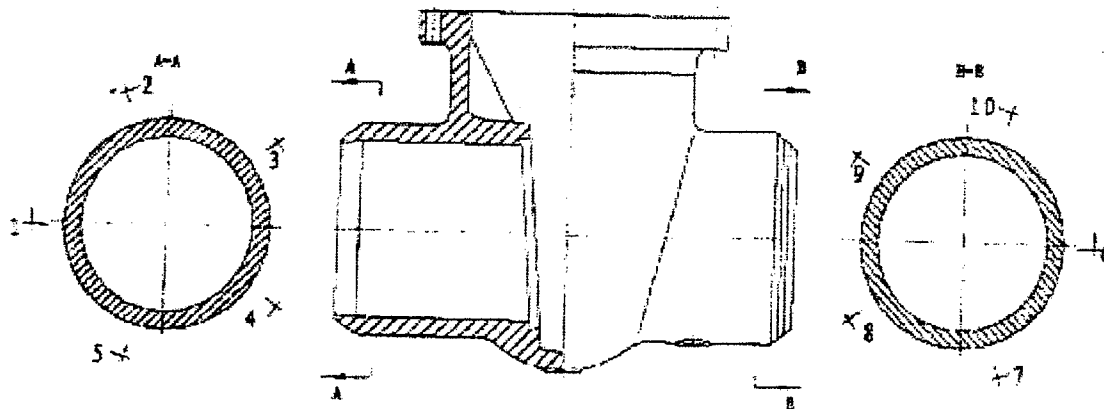
 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
	PHONE:	+ (34) 94. 455. 51. 51
	FAX:	+ (34) 94. 455. 51. 50
	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC MAP

Page: 2 / 2

Procedure:	ASME B 16.34		
Customer:	VALVES ENTREPRISE, S.L.	Heat:	K40060
Contract:	P-10005-4019	Part No.	W6329
Drawing:	600LB 16"	Descriptions:	GATE BODY

Radiography No.	Type and Size of Film	Thickness	Source	I.Q.I.	Focus-Film Distance	Density	Back Shielding
R1-R12	KODAK AA400	50 - 70	IR 192	ASTM 1C.16	450MM	1.5-4.0	Pb
*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****





Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4568444
Siekmann-Order-No.: 8035036

CERTIFICATE-NO.: 070-1

Lurgi-Item-No.	Lurgi-I.D.	Pieces	Remarks
070	10SPP048	1	

Date 21.03.05
Siekmann Econosto GmbH & Co. KG



QM Memold Oestreich

If you need any Spare Parts or
technical support please contact:

Siekmann Econosto GmbH & Co. KG
P.O. Box 150440, D-44344 Dortmund
Freigrafenweg 2, D-44357 Dortmund
Germany

Tel.: 0049 - 231 937 50
Fax : 0049 - 231 937 5188
E-mail: info@siekmann-econosto.de
Web: www.siekmann-econosto.de

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER		CERTIFICATE acc. to EN 10204 - 3.1.B.	CERT No.: SVR-3254-07
			REV.:
			DATE: 04/02/05

CONFORMITY AND GUARANTEE TEST CERTIFICATE

CLIENT: SIKMANN	P.O. No.: 90050090P	LURGI ITEM: 00070	SERIAL No.:
LURGI Ref.: 4568444-000/1.69690/136	V.E. Ref.: 10005-4019		
SVR Ref.: OF-3254	LURGI IDENT.NO: 10SPP048	QUANTITY: 1	
FIGURE NO.: 1.600 BW	DESCRIPTION: 16" -600 Lbs. GATE VALVE	ENDS: FLANGE () BUTT WELD (X)	

DESIGN AND TEST ACCORDING TO:

API 600	X	API 598	X	BS 6755 Part. 1 rate B		DIN 3230 - 3		MSS - SP 82		NACE MR 0175	
OTHERS : B16.25 B16.10											

TYPE OF TEST	SHELL & PACKING 100%	SEAT (WATER) 100% HP	BACKSEAT (WATER) 100% HP	SEAT (AIR) LP
DURATION (Sec)	300	120	60	120
PRESSURE (Kg/cm ²)	150	110	110	4-7
RESULT	SATISFACTORY	SATISFACTORY	SATISFACTORY	SATISFACTORY
MANOMETER SERIAL.: ----- SVR-1098 -----				

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that all valves described above are in compliance with purchase order and specification requirements. This test report represents the actual attributes of the valves furnished and the test results are in compliance with the applicable specification and purchase order requirements.

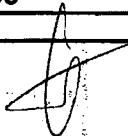
TEST REPORT EN 10204 - 3.1.B.

BODY & BONNET	ASTM A 216 WCB		
WEDGE	ASTM A 216 WCB + STL Overlay		
BODY RING	ASTM A 105 + STL Overlay		
STEM	ASTM A 105		
PACKING	GRAPHITE		
GASKET	SPW 304 + GRAPHITE		
BOLTING	A 193 B7 / A 194 Gr.2H		

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that the above items are in full compliance with the listed material specifications and all purchase order requirements, giving a guarantee of the products against any fabrication defects for a period of 12 months from expedition date.

DIMENSIONAL EXAMINATION: ACCEPTABLE	VISUAL EXAMINATION: MSS SP 55 ACCEPTABLE	MARKING: MSS SP 25 ACCEPTABLE
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FOUNDRY MILL CERTIFICATE NUMBERS

BODY, BONNET, & WEDGE: W6330	
QUALITY CONTROL MANAGER:  04 FEB. 2005	CLIENT'S INSPECTOR:



SPECIALTY VALVES RESEARCH, S.A.
VALVES MANUFACTURER

MATERIAL CERTIFICATES
CERTIFICADO DE INSPECCION s/
INSPECTION CERTIFICATE Acc. To

Nº/Nr.: W6330

FECHA:

DATE: 17/12/04

Cliente/Client.:

VALVES ENTREPRISE
LAS MERCEDES NO. 23 - 6º
EDIFICIO ABRA NO.1
48930 LAS ARENAS -BIZKAIA-

Pedido Nº

Purchase Order: P-10005-4019

Cantidad:

Quantity: 3

Anagrama del Fabricante / sello del Inspector:
Manufacturer's Logo / Inspector stamp:



TRATAMIENTO TERMICO
HEAT TREATMENT

Normalizado:



Normalized:

Normalizado+Revenido



Normalized+Tempered

Templado+Revenido:



Quenched+Tempered:

Solubilización:



Solution:

H.T. CONDICION
CONDITION T.T.

NORMALIZED 980 °C x 3H

MODO DE FUSION:

INDUCTION MELTING

TYPE OF MELTING:

DENOMINACION DE LA PIEZA:
CASTING DENOMINATION:

Gate Body

16" - 600 Lbs

Heat No.:

K40055

Gate Bonnet

16" - 600 Lbs

Heat No.:

K40059

Gate Wedge

16" - 600 Lbs

Heat No.:

K40054

CALIDAD DE ACERO:
STEEL QUALITY:

ASTM A 216 WCB

CONDICIONES DE ENTREGA:
TERMS OF DELIVERY:

NACE MR 01-75:00

ANALISIS QUÍMICO - CHEMICAL ANALYSIS

COLADA HEAT No.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V		Nº de Piezas Ner. Pieces	Peso kgs. Weight
Solicitado (Norma) Requirements (max)	0.30	0.60	1.00	0.040	0.045	0.50	0.50	0.20	0.30	0.03			
K40055	0.22	0.32	0.85	0.021	0.023	0.07	0.055	0.022	0.025	0.001		1	
K40059	0.21	0.40	0.79	0.027	0.030	0.07	0.098	0.018	0.015	0.001		1	
K40054	0.21	0.41	0.76	0.021	0.015	0.07	0.144	0.020	0.018	0.001		1	

PROPIEDADES MECANICAS / MECHANICAL PROPERTIES Acc. To ASTM A 370

COLADA HEAT No.	Probeta Test Sample	Diametro (mm) Diameter Ø	L. Elástico Yield Point N/mm²	Resistencia Tensile Str. N/mm²	Alargamiento Elongation %	Estricción Red. of Area %	Dureza Hardness HB	Resiliencia Impact Test (ISO V Prob) J; T 20 °C		
Solicitado Requirements	Lo = 4D	12.5	250	485-655	22	35	232	27 J		
K40055	Lo = 4D	12.5	390	495	29	39	154	31	40	39
K40059	Lo = 4D	12.5	328	530	25	42	150	31	34	40
K40054	Lo = 4D	12.5	285	495	29	39	153	42	30	36
Insp. Visual y C. Dimensional Visual Insp. And Dimens check		Ensayo Magnaflux Magnaflux test		Insp. Por Gammagrafia Gammagraphic Inspection		Ensayo de Presión Pressure Test		Insp. Por Ultrasonidos Ultrasonic Test		
S/ MSS-SP-55		Satisfactory								

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los **certificados 3.1.B.** correspondientes s/ **EN 10204**, que obran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that the material described above, has been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding **3.1.B. certificates** acc. to **EN 10204**, which are field in our factory, emitted by our homologated suppliers.

Quality Control Department

04 FEB 2005

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
	PHONE:	+ (34) 94. 455. 51. 51
	FAX:	+ (34) 94. 455. 51. 50
	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC EXAMINATION REPORT FOR CASTINGS

Procedure:	ASME B 16.34	Report No.:	W6330
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Page: 1 / 2

Customer :	VALVES ENTREPRISE, S.L.	Contract:	P-10005-4019
Description :	GATE BODY	Extension of Test:	BW-ENDS
Drawing :	600LB 16"	Radiographed at:	Shop: ☒ Field: ☐
Material :	WCB Heat Number: K40055		

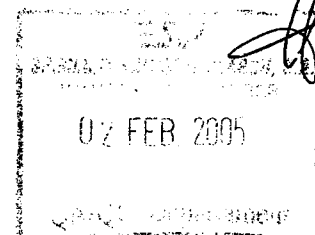
X Rays KV	Γ RAYS	Isotope :	IR 192	Curies:	40	Focal Spot Size:	3x3
Film Type, Brand and Size :	KODAK AA400,360x100		IQI:		ASTM 1C.16		
Screens Type and Thickness :	Pb,0.05/0.20		Material Thickness:		50 - 70		
Density :	1.5-4.0	Source Film Distance :	450MM	Exposure Time:	5 min - 30 s		

Evaluation standard for steel castings radiographic examination (See Back)	Acceptance Standard
Sketch of geometric arrangement of radiographs and location markers in attached form	ASME B 16.34

Identification	Interval	Viewing	Evaluation	Observed Defects								Supplied	Accepted
				Porosity	Sand	Shrinkage	Cracks	Hot Tears	Others				
R1	1-2		II	/	/	/	/	/	/			I	OK
R2	2-3		II	/	/	/	/	/	/			I	OK
R3	3-4		II	/	/	/	/	/	/			I	OK
R4	4-5		II	/	/	/	/	/	/			I	OK
R5	5-6		II	/	B1	/	/	/	/			I	OK
R6	6-1		II	/	/	/	/	/	/			I	OK
R7	7-8		II	/	/	/	/	/	/			I	OK
R8	8-9		II	/	/	CB2	/	/	/			II	OK
R9	9-10		II	/	/	/	/	/	/			I	OK
R10	10-6		II	/	/	/	/	/	/			I	OK
R11	11-12		II	/	/	/	/	/	/			I	OK
R12	12-7		II	/	/	/	/	/	/			I	OK
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Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los certificados correspondientes, que abran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that material described above, have been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding certificates, which are field in our factory, emitted by homologated suppliers.



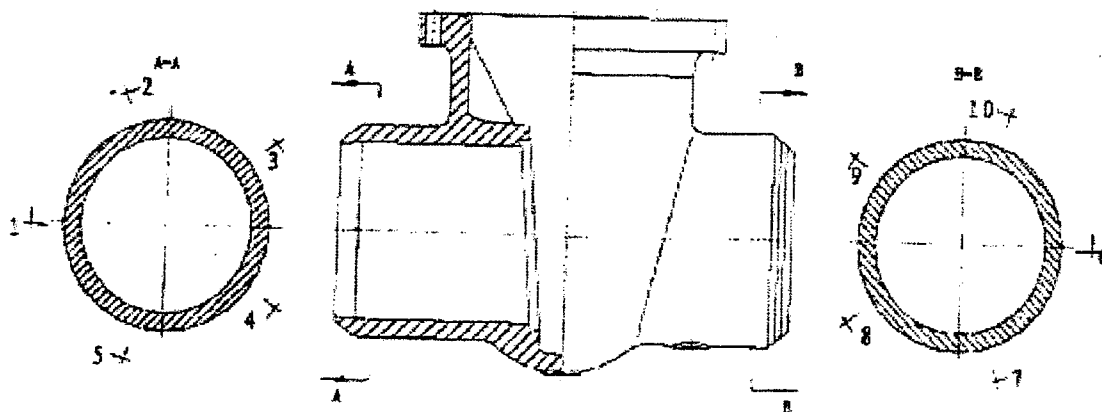
 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
	PHONE:	+ (34) 94. 455. 51. 51
	FAX:	+ (34) 94. 455. 51. 50
	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC MAP

Page: 2 / 2

Procedure:	ASME B 16.34		
Customer:	VALVES ENTREPRISE, S.L.	Heat:	K40055
Contract:	P-10005-4019	Part No:	W6330
Drawing:	600LB 16"	Descriptions:	GATE BODY

Radiography No.	Type and Size of Film	Thickness	Source	I.Q.I.	Focus-Film Distance	Density	Back Shielding
R1-R12	KODAK AA400	50 - 70	IR 192	ASTM 1C.1E	450MM	1.5-4.0	Pb
*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****





Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4568444
Siekmann-Order-No.: 8035036

CERTIFICATE-NO.: 080-1

Lurgi-Item-No.	Lurgi-I.D.	Pieces	Remarks
080	10SPP082	1	

Date 21.03.05
Siekmann Econosto GmbH & Co. KG



QM-Meinold Oestreich

If you need any Spare Parts or
technical support please contact:

Siekmann Econosto GmbH & Co. KG
P.O. Box 150440, D-44344 Dortmund
Freigrafenweg 2, D-44357 Dortmund
Germany

Tel.: 0049 - 231 937 50
Fax : 0049 - 231 937 5188
E-mail: info@siekmann-econosto.de
Web: www.siekmann-econosto.de

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER		CERTIFICATE acc. to EN 10204 - 3.1.B.	CERT No.: SVR-3254-08
			REV.:
			DATE: 04/02/05

CONFORMITY AND GUARANTEE TEST CERTIFICATE

CLIENT: SIKEMANN	P.O. No.: 90050090P	LURGI ITEM: 00080 SERIAL No.:
LURGI Ref.: 4568444-000/1.69690/136	V.E. Ref.: 10005-4019	
SVR Ref.: OF-3254	LURGI IDENT.NO: 10SP082	QUANTITY: 1
FIGURE NO.: 1.600 BW	DESCRIPTION: 16" -600 Lbs. GATE VALVE	ENDS: FLANGE () BUTT WELD (X)

DESIGN AND TEST ACCORDING TO:

API 600	☒	API 598	☒	BS 6755 Part. 1 rate B	DIN 3230 - 3	MSS - SP 82	NACE MR 0175
OTHERS : B16.25 B16.10							

TYPE OF TEST	SHELL & PACKING 100%	SEAT (WATER) 100%HP	BACKSEAT (WATER) 100% HP	SEAT (AIR) LP
DURATION (Sec)	300	120	60	120
PRESSURE (Kg/cm ²)	150	110	110	4-7
RESULT	SATISFACTORY	SATISFACTORY	SATISFACTORY	SATISFACTORY
MANOMETER SERIAL.: ----- SVR-1098-----				

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that all valves described above are in compliance with purchase order and specification requirements. This test report represents the actual attributes of the valves furnished and the test results are in compliance with the applicable specification and purchase order requirements.

TEST REPORT EN 10204 - 3.1.B.

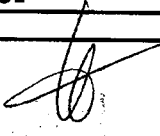
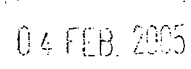
BODY & BONNET	ASTM A 216 WCB		
WEDGE	ASTM A 216 WCB + STL Overlay		
BODY RING	ASTM A 105 + STL Overlay		
STEM	ASTM A 105		
PACKING	GRAPHITE		
GASKET	SPW 304 + GRAPHITE		
BOLTING	A 193 B7 / A 194 Gr.2H		

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that the above items are in full compliance with the listed material specifications and all purchase order requirements, giving a guarantee of the products against any fabrication defects for a period of 12 months from expedition date.

DIMENSIONAL EXAMINATION: ACCEPTABLE	VISUAL EXAMINATION: MSS SP 55 ACCEPTABLE	MARKING: MSS SP 25 ACCEPTABLE
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FOUNDRY MILL CERTIFICATE NUMBERS

BODY, BONNET, & WEDGE: **W6331**

QUALITY CONTROL MANAGER:   	CLIENT'S INSPECTOR:
--	---------------------



SPECIALTY VALVES RESEARCH, S.A.
VALVES MANUFACTURER

MATERIAL CERTIFICATES
CERTIFICADO DE INSPECCION s/
INSPECTION CERTIFICATE Acc. To

Nº/Nr.: W6331

FECHA:

DATE: 17/12/04

Cliente/Cliet.:

VALVES ENTREPRISE
LAS MERCEDES NO. 23 - 6º
EDIFICIO ABRA NO.1
48930 LAS ARENAS -BIZKAIA-

Pedido Nº

Purchase Order: P-10005-4019

Cantidad:

Quantity: 3

Anagrama del Fabricante / sello del Inspector:
Manufacturer's Logo / Inspector stamp:



TRATAMIENTO TERMICO
HEAT TREATMENT

Normalizado:



Normalized:

Normalizado+Revenido



Normalized+Tempered

Templado+Revenido:



Quenched+Tempered:

Solubilización:



Solution:

H.T. CONDICION
CONDITION T.T.

NORMALIZED 980 °C x 3H

MODO DE FUSION:

INDUCTION MELTING

TYPE OF MELTING:

DENOMINACION DE LA PIEZA:
CASTING DENOMINATION:

Gate Body

16" - 600 Lbs

Heat No.:

K40052

Gate Bonnet

16" - 600 Lbs

Heat No.:

K40053

Gate Wedge

16" - 600 Lbs

Heat No.:

K40052

CALIDAD DE ACERO:
STEEL QUALITY:

ASTM A 216 WCB

CONDICIONES DE ENTREGA:
TERMS OF DELIVERY:

NACE MR 01-75:00

ANÁLISIS QUÍMICO - CHEMICAL ANALYSIS

COLADA HEAT No.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V		Nº de Piezas Ner. Pieces	Peso kgs. Weight
Solicitado (Norma) Requirements (max)	0.30	0.60	1.00	0.040	0.045	0.50	0.50	0.20	0.30	0.03			
K40052	0.21	0.33	0.72	0.019	0.020	0.05	0.016	0.018	0.013	0.001		2	
K40053	0.20	0.32	0.61	0.022	0.017	0.07	0.098	0.013	0.024	0.001		1	

PROPIEDADES MECANICAS / MECHANICAL PROPERTIES Acc. To ASTM A 370

COLADA HEAT No.	Probeta Test Sample	Diametro (mm) Diameter Ø	L. Elástico Yield Point N/mm²	Resistencia Tensile Str. N/mm²	Alargamiento Elongation %	Estricción Red. of Area %	Dureza Hardness HB	Resiliencia Impact Test (ISO V Prob) J; T 20 °C		
Solicitado Requirements	Lo = 4D	12.5	250	485-655	22	35	232	27 J		
K40052	Lo = 4D	12.5	275	490	27	37	149	35	45	31
K40053	Lo = 4D	12.5	338	500	26	44	153	36	33	45
Insp. Visual y C. Dimensional Visual Insp. And Dimens check		Ensayo Magnaflux Magnaflux test		Insp. Por Gammaografia Gammaographic Inspection		Ensayo de Presión Pressure Test		Insp. Por Ultrasonidos Ultrasonic Test		
S/ MSS-SP-55		Satisfactory								

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los **certificados 3.1.B.** correspondientes s/ **EN 10204**, que obran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that the material described above, has been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding **3.1.B. certificates** acc. to **EN 10204**, which are filed in our factory, emitted by our homologated suppliers.

Quality Control Department

04 FEB. 2005

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
	PHONE:	+ (34) 94. 455. 51. 51
	FAX:	+ (34) 94. 455. 51. 50
	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC EXAMINATION REPORT FOR CASTINGS

Procedure:	ASME B 16.34	Report No.:	W6331
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Page: 1 / 2

Customer :	VALVES ENTREPRISE, S.L.	Contract:	P-10005-4019
Description :	GATE BODY	Extension of Test:	BW-ENDS
Drawing :	600LB 16"	Radiographed at:	Shop: ☒ Field: ☐
Material :	WCB Heat Number: K40052		

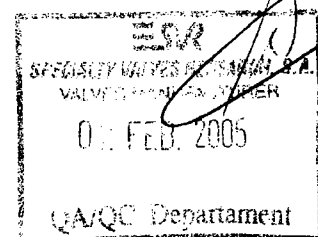
X Rays KV	Γ RAYS	Isotope :	IR 192	Curies:	40	Focal Spot Size:	3x3
Film Type, Brand and Size :	KODAK AA400,360x100		TQT:		ASTM 1C.16		
Screens Type and Thickness :	Pb,0.05/0.20		Material Thickness:		50 - 70		
Density :	1.5-4.0	Source Film Distance :	450MM	Exposure Time:	5 min - 30 s		

Evaluation standard for steel castings radiographic examination (See Back)	Acceptance Standard
Sketch of geometric arrangement of radiographs and location markers in attached form	ASME B 16.34

Identification	Interval	Viewing	Evaluation	Observed Defects								Report	Remarks
				Porosity	Sand	Shrinkage	Cracks	Hot Tears	Others				
R1	1-2		II	/	/	/	/	/	/			I	OK
R2	2-3		II	/	/	/	/	/	/			I	OK
R3	3-4		II	/	/	/	/	/	/			I	OK
R4	4-5		II	/	/	/	/	/	/			I	OK
R5	5-6		II	/	/	/	/	/	/			I	OK
R6	6-1		II	/	/	/	/	/	/			I	OK
R7	7-8		II	/	/	CA2	/	/	/			II	OK
R8	8-9		II	/	/	/	/	/	/			I	OK
R9	9-10		II	/	/	/	/	/	/			I	OK
R10	10-6		II	/	/	/	/	/	/			I	OK
R11	11-12		II	/	/	/	/	/	/			I	OK
R12	12-7		II	/	/	CA2	/	/	/			II	OK
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Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los certificados correspondientes, que abran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that material described above, have been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding certificates, which are field in our factory, emitted by homologated suppliers.



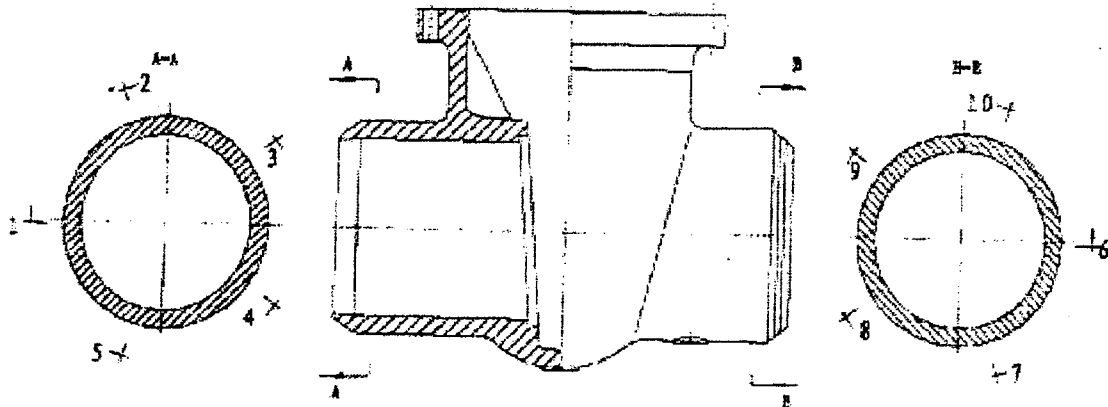
 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
	PHONE:	+ (34) 94. 455. 51. 51
	FAX:	+ (34) 94. 455. 51. 50
	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC MAP

Page: 2 / 2

Procedure:	ASME B 16.34		
Customer:	VALVES ENTREPRISE, S.L.	Heat:	K40052
Contract:	P-10005-4019	Part No:	W6331
Drawing:	600LB 16"	Descriptions:	GATE BODY

Radiography No.	Type and Size of Film	Thickness	Source	I.Q.I.	Focus-Film Distance	Density	Back Shielding
R1-R12	KODAK AA400	50 - 70	IR 192	ASTM 1C.1E	450MM	1.5-4.0	Pb
*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****



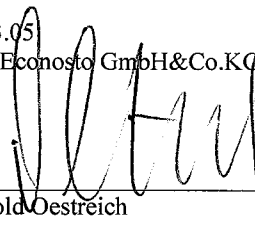


Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4568444
Siekmann-Order-No.: 8035036

CERTIFICATE-NO.: 090-1

Lurgi-Item-No.	Lurgi-I.D.	Pieces	Remarks
090	10SPP080	1	

Date 21.03.05
Siekmann Econosto GmbH & Co. KG


QM Meinold Oestreich

If you need any Spare Parts or
technical support please contact:

Siekmann Econosto GmbH & Co. KG
P.O. Box 150440, D-44344 Dortmund
Freigrafenweg 2, D-44357 Dortmund
Germany

Tel.: 0049 - 231 937 50
Fax : 0049 - 231 937 5188
E-mail: info@siekmann-econosto.de
Web: www.siekmann-econosto.de



SPECIALTY VALVES RESEARCH, S.A.
VALVES MANUFACTURER



CERTIFICATE acc. to
EN 10204 - 3.1.B.

CERT No.: SVR-3254-09

REV.:

DATE: 04/02/05

CONFORMITY AND GUARANTEE TEST CERTIFICATE

CLIENT: **SIKMANN** P.O. No.: **90050090P** LURGI ITEM: **00090** SERIAL No.:
LURGI Ref.: **4568444-000/1.69690/136** V.E. Ref.: **10005-4019**
SVR Ref.: **OF-3254** LURGI IDENT.NO: **10SPP080** QUANTITY: **1**
FIGURE NO.: **1.600 BW** DESCRIPTION: **16" -600 Lbs.** ENDS: FLANGE ()
GATE VALVE BUTT WELD (X)

DESIGN AND TEST ACCORDING TO:

API 600	X	API 598	X	BS 6755 Part. 1 rate B	DIN 3230 - 3	MSS - SP 82	NACE MR 0175
OTHERS : B16.25 B16.10							

TYPE OF TEST	SHELL & PACKING 100%	SEAT (WATER) 100%HP	BACKSEAT (WATER) 100% HP	SEAT (AIR) LP
DURATION (Sec)	300	120	60	120
PRESSURE (Kg/cm ²)	150	110	110	4-7
RESULT	SATISFACTORY	SATISFACTORY	SATISFACTORY	SATISFACTORY
MANOMETER SERIAL.: SVR-1098				

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that all valves described above are in compliance with purchase order and specification requirements. This test report represents the actual attributes of the valves furnished and the test results are in compliance with the applicable specification and purchase order requirements.

TEST REPORT EN 10204 - 3.1.B.

BODY & BONNET	ASTM A 216 WCB		
WEDGE	ASTM A 216 WCB + STL Overlay		
BODY RING	ASTM A 105 + STL Overlay		
STEM	ASTM A 105		
PACKING	GRAPHITE		
GASKET	SPW 304 + GRAPHITE		
BOLTING	A 193 B7 / A 194 Gr.2H		

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that the above items are in full compliance with the listed material specifications and all purchase order requirements, giving a guarantee of the products against any fabrication defects for a period of 12 months from expedition date.

DIMENSIONAL EXAMINATION: ACCEPTABLE	VISUAL EXAMINATION: MSS SP 55 ACCEPTABLE	MARKING: MSS SP 25 ACCEPTABLE
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FOUNDRY MILL CERTIFICATE NUMBERS

BODY, BONNET, & WEDGE: **W6332**

QUALITY CONTROL MANAGER: 04 FEB. 2005 QMS Department	CLIENT'S INSPECTOR:
--	---------------------



**MATERIAL CERTIFICATES
CERTIFICADO DE INSPECCION s/
INSPECTION CERTIFICATE Acc. To**

Nº/Nr.: W6332

FECHA:

DATE: 17/12/04

Cliente/Cient.:

**VALVES ENTREPRISE
LAS MERCEDES NO. 23 - 6º
EDIFICIO ABRA NO.1
48930 LAS ARENAS -BIZKAIA-**

Pedido Nº

Purchase Order: P-10005-4019

Cantidad:

Quantity: 3

Anagrama del Fabricante / sello del Inspector:
Manufacturer's Logo / Inspector stamp:



**TRATAMIENTO TERMICO
HEAT TREATMENT**

Normalizado:



Normalized:

Normalizado+Revenido



Normalized+Tempered

Templado+Revenido:



Quenched+Tempered:

Solubilización:



Solution:

**H.T. CONDICION
CONDITION T.T.**

NORMALIZED 980 °C x 3H

MODO DE FUSION:

INDUCTION MELTING

TYPE OF MELTING:

**DENOMINACION DE LA PIEZA:
CASTING DENOMINATION:**

Gate Body

16" - 600 Lbs

Heat No.:

K40058

Gate Bonnet

16" - 600 Lbs

Heat No.:

K40055

Gate Wedge

16" - 600 Lbs

Heat No.:

K40058

**CALIDAD DE ACERO:
STEEL QUALITY:**

ASTM A 216 WCB

**CONDICIONES DE ENTREGA:
TERMS OF DELIVERY:**

NACE MR 01-75:00

NÁLISIS QUÍMICO - CHEMICAL ANALYSIS

COLADA HEAT No.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V		Nº de Piezas Ner. Pieces	Peso kgs. Weight
Solicitado (Norma) Requirements (max)	0.30	0.60	1.00	0.040	0.045	0.50	0.50	0.20	0.30	0.03			
K40058	0.20	0.38	0.82	0.021	0.022	0.06	0.037	0.015	0.019	0.001		2	
K40055	0.22	0.32	0.85	0.021	0.023	0.07	0.055	0.022	0.025	0.001		1	

PROPIEDADES MECANICAS / MECHANICAL PROPERTIES Acc. To ASTM A 370

COLADA HEAT No.	Probeta Test Sample	Diametro (mm) Diameter Ø	L. Elástico Yield Point N/mm²	Resistencia Tensile Str. N/mm²	Alargamiento Elongation %	Estricción Red. of Area %	Dureza Hardness HB	Resiliencia Impact Test (ISO V Prob) J; T 20 °C		
Solicitado Requirements	Lo = 4D	12.5	250	485-655	22	35	232	27 J		
K40058	Lo = 4D	12.5	305	495	29	39	151	42	31	43
K40055	Lo = 4D	12.5	390	495	29	39	154	31	40	39
Insp. Visual y C. Dimensional Visual Insp. And Dimens check		Ensayo Magnaflux Magnaflux test		Insp. Por Gammagrafia Gamma-graphic Inspection		Ensayo de Presión Pressure Test		Insp. Por Ultrasonidos Ultrasonic Test		
S/ MSS-SP-55		Satisfactory								

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los **certificados 3.1.B.** correspondientes s/ **EN 10204**, que obran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that the material described above, has been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding **3.1.B. certificates** acc. to **EN 10204**, which are field in our factory, emitted by our homologated suppliers.

Quality Control Department

04 FEB 2005

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
	PHONE:	+ (34) 94. 455. 51. 51
	FAX:	+ (34) 94. 455. 51. 50
	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC EXAMINATION REPORT FOR CASTINGS

Procedure:	ASME B 16.34	Report No.:	W6332
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Page: 1 / 2

Customer :	VALVES ENTREPRISE, S.L.	Contract:	P-10005-4019
Description :	GATE BODY	Extension of Test:	BW-ENDS
Drawing :	600LB 16"	Radiographed at:	Shop: ☒ Field: ☐
Material :	WCB Heat Number: K40058		

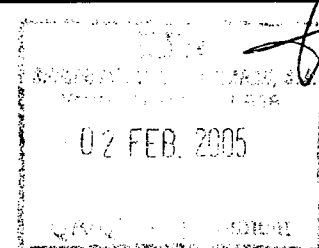
X Rays KV	Γ RAYS	Isotope :	IR 192	Curies:	40	Focal Spot Size:	3x3
Film Type, Brand and Size :	KODAK AA400,360x100			IQI:	ASTM 1C.16		
Screens Type and Thickness :	Pb,0.05/0.20			Material Thickness:	50 - 70		
Density :	1.5-4.0	Source Film Distance :	450MM	Exposure Time:	5 min - 30 s		

Evaluation standard for steel castings radiographic examination (See Back)	Acceptance Standard
Sketch of geometric arrangement of radiographs and location markers in attached form	ASME B 16.34

Identification	Interval	Viewing	Evaluation	Observed Defects								Signat	Accepted
				Porosity	Sand	Shrinkage	Cracks	Hot Tears	Others				
R1	1-2		II	/	/	/	/	/	/	/	/	I	OK
R2	2-3		II	/	/	/	/	/	/	/	/	I	OK
R3	3-4		II	/	/	/	/	/	/	/	/	I	OK
R4	4-5		II	/	/	/	/	/	/	/	/	I	OK
R5	5-6		II	/	/	/	/	/	/	/	/	I	OK
R6	6-1		II	/	/	CA1	/	/	/	/	/	I	OK
R7	7-8		II	/	/	/	/	/	/	/	/	I	OK
R8	8-9		II	/	/	/	/	/	/	/	/	I	OK
R9	9-10		II	/	/	/	/	/	/	/	/	I	OK
R10	10-6		II	/	/	/	/	/	/	/	/	I	OK
R11	11-12		II	/	/	/	/	/	/	/	/	I	OK
R12	12-7		II	/	/	/	/	/	/	/	/	I	OK
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Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los certificados correspondientes, que abran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that material described above, have been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding certificates, which are field in our factory, emitted by homologated suppliers.



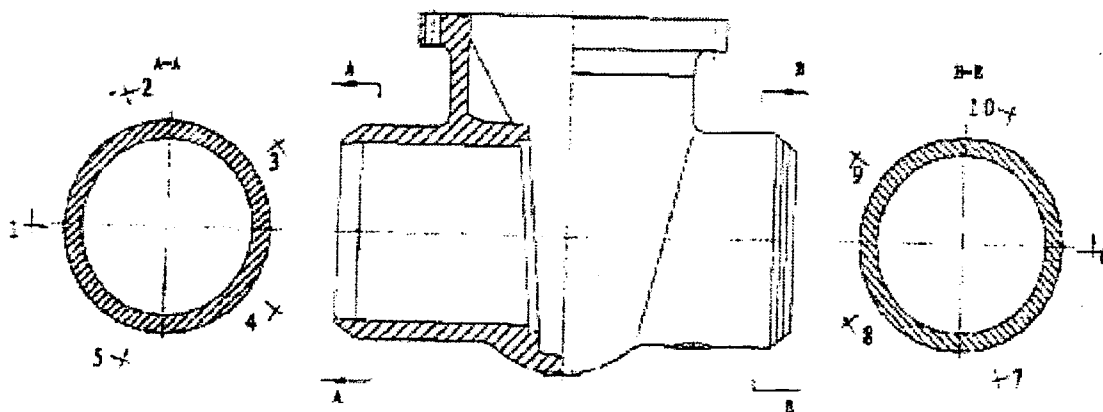
 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
	PHONE:	+ (34) 94. 455. 51. 51
	FAX:	+ (34) 94. 455. 51. 50
	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC MAP

Page: 2 / 2

Procedure:	ASME B 16.34		
Customer:	VALVES ENTREPRISE, S.L.	Heat:	K40058
Contract:	P-10005-4019	Part No:	W6332
Drawing:	600LB 16"	Descriptions:	GATE BODY

Radiografy No.	Type and Size of Film	Thickness	Source	I.Q.I.	Focus-Film Distance	Density	Back Shielding
R1-R12	KODAK AA400	50 - 70	IR 192	ASTM 1C.1c	450MM	1.5-4.0	Pb
*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****





Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4568444
Siekmann-Order-No.: 8035036

CERTIFICATE-NO.: 100-1

Lurgi-Item-No.	Lurgi-I.D.	Pieces	Remarks
100	10SPP079	1	

Date 21.03.05
Siekmann Econosto GmbH & Co. KG



QM Meinold Oestreich

If you need any Spare Parts or
technical support please contact:

Siekmann Econosto GmbH & Co. KG
P.O. Box 150440, D-44344 Dortmund
Freigrafenweg 2, D-44357 Dortmund
Germany

Tel.: 0049 - 231 937 50
Fax : 0049 - 231 937 5188
E-mail: info@siekmann-econosto.de
Web: www.siekmann-econosto.de

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER		CERTIFICATE acc. to EN 10204 - 3.1.B.	CERT No.: SVR-3254-10
			REV.:
			DATE: 04/02/05

CONFORMITY AND GUARANTEE TEST CERTIFICATE

CLIENT: SEKMANN	P.O. No.: 9005009OP	LURGI ITEM: 00100	SERIAL No.:
LURGI Ref.: 4568444-000/1.69690/136	V.E. Ref.: 10005-4019		
SVR Ref.: OF-3254	LURGI IDENT.NO: 10SP079	QUANTITY: 1	
FIGURE NO.: 1.600 BW	DESCRIPTION: 16" -600 Lbs.	ENDS: FLANGE ()	
	GATE VALVE	BUTT WELD (X)	

DESIGN AND TEST ACCORDING TO:

API 600	☒	API 598	☒	BS 6755 Part. 1 rate B	DIN 3230 - 3	MSS - SP 82	NACE MR 0175
OTHERS : B16.25 B16.10							

TYPE OF TEST	SHELL & PACKING 100%	SEAT (WATER) 100%HP	BACKSEAT (WATER) 100% HP	SEAT (AIR) LP
DURATION (Sec)	300	120	60	120
PRESSURE (Kg/cm ²)	150	110	110	4-7
RESULT	SATISFACTORY	SATISFACTORY	SATISFACTORY	SATISFACTORY
MANOMETER SERIAL.: ----- SVR-1098-----				

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that all valves described above are in compliance with purchase order and specification requirements. This test report represents the actual attributes of the valves furnished and the test results are in compliance with the applicable specification and purchase order requirements.

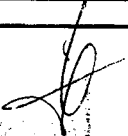
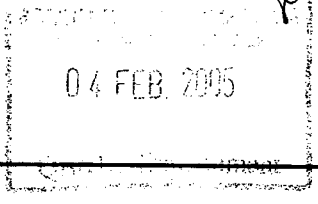
TEST REPORT EN 10204 - 3.1.B.

BODY & BONNET	ASTM A 216 WCB		
WEDGE	ASTM A 216 WCB + STL Overlay		
BODY RING	ASTM A 105 + STL Overlay		
STEM	ASTM A 105		
PACKING	GRAPHITE		
GASKET	SPW 304 + GRAPHITE		
BOLTING	A 193 B7 / A 194 Gr.2H		

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that the above items are in full compliance with the listed material specifications and all purchase order requirements, giving a guarantee of the products against any fabrication defects for a period of 12 months from expedition date.

DIMENSIONAL EXAMINATION: ACCEPTABLE	VISUAL EXAMINATION: MSS SP 55 ACCEPTABLE	MARKING: MSS SP 25 ACCEPTABLE
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FOUNDRY MILL CERTIFICATE NUMBERS

BODY, BONNET, & WEDGE: W6333	
QUALITY CONTROL MANAGER:  	CLIENT'S INSPECTOR:



SPECIALTY VALVES RESEARCH, S.A.
VALVES MANUFACTURER

MATERIAL CERTIFICATES
CERTIFICADO DE INSPECCION s/
INSPECTION CERTIFICATE Acc. To

Nº/Nr.: W6333

FECHA:

DATE: 17/12/04

Cliente/Cliet.:

VALVES ENTREPRISE
LAS MERCEDES NO. 23 - 6º
EDIFICIO ABRA NO.1
48930 LAS ARENAS -BIZKAIA-

Pedido Nº
Purchase Order: **P-10005-4019**

Cantidad:
Quantity: **3**

Anagrama del Fabricante / sello del Inspector:
Manufacturer's Logo / Inspector stamp:



TRATAMIENTO TERMICO
HEAT TREATMENT

Normalizado:



Normalized:

Normalizado+Revenido



Normalized+Tempered

Templado+Revenido:



Quenched+Tempered:

Solubilización:



Solution:

H.T. CONDICION
CONDITION T.T.

NORMALIZED 980 °C x 3H

MODO DE FUSION:

INDUCTION MELTING

TYPE OF MELTING:

DENOMINACION DE LA PIEZA:
CASTING DENOMINATION:

Gate Body

16" - 600 Lbs

Heat No.:

K40054

Gate Bonnet

16" - 600 Lbs

Heat No.:

K40059

Gate Wedge

16" - 600 Lbs

Heat No.:

K40058

CALIDAD DE ACERO:
STEEL QUALITY:

ASTM A 216 WCB

CONDICIONES DE ENTREGA:
TERMS OF DELIVERY:

NACE MR 01-75:00

NÁLISIS QUÍMICO - CHEMICAL ANALYSIS

COLADA HEAT No.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V		Nº de Piezas Ner. Pieces	Peso kgs. Weight
Solicitado (Norma) Requirements (max)	0.30	0.60	1.00	0.040	0.045	0.50	0.50	0.20	0.30	0.03			
K40054	0.21	0.41	0.76	0.021	0.015	0.07	0.144	0.020	0.018	0.001		1	
K40059	0.21	0.40	0.79	0.027	0.030	0.07	0.098	0.018	0.015	0.001		1	
K40058	0.20	0.38	0.82	0.021	0.022	0.06	0.037	0.015	0.019	0.001		1	

PROPIEDADES MECANICAS / MECHANICAL PROPERTIES Acc. To ASTM A 370

COLADA HEAT No.	Probeta Test Sample	Diametro (mm) Diameter Ø	L. Elástico Yield Point N/mm²	Resistencia Tensile Str. N/mm²	Alargamiento Elongation %	Estricción Red. of Area %	Dureza Hardness HB	Resistencia Impact Test (ISO V Prob) J; T 20 °C		
Solicitado Requirements	Lo = 4D	12.5	250	485-655	22	35	232	27 J		
K40054	Lo = 4D	12.5	285	495	29	39	153	42	30	36
K40059	Lo = 4D	12.5	328	530	25	42	150	31	34	40
K40058	Lo = 4D	12.5	305	495	29	39	151	42	31	43
Insp. Visual y C. Dimensional Visual Insp. And Dimens check		Ensayo Magnaflux Magnaflux test		Insp. Por Gammagrafia Gammagraphic Inspection		Ensayo de Presión Pressure Test		Insp. Por Ultrasonidos Ultrasonic Test		
S/ MSS-SP-55		Satisfactory								

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los **certificados 3.1.B.** correspondientes s/ **EN 10204**, que obran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that the material described above, has been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding **3.1.B. certificates** acc. to **EN 10204**, which are field in our factory, emitted by our homologated suppliers.

Quality Control Department

04 FEB. 2015

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
	PHONE:	+ (34) 94. 455. 51. 51
	FAX:	+ (34) 94. 455. 51. 50
	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC EXAMINATION REPORT FOR CASTINGS

Procedure:	ASME B 16.34	Report No.:	W6333
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Page: 1 / 2

Customer :	VALVES ENTREPRISE, S.L.	Contract:	P-10005-4019
Description :	GATE BODY	Extension of Test:	BW-ENDS
Drawing :	600LB 16"	Radiographed at:	Shop: ☒ Field: ☐
Material :	WCB Heat Number: K40054		

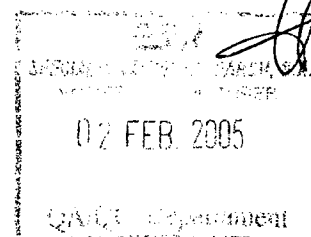
X Rays KV	Γ RAYS	Isotope :	IR 192	Curies:	40	Focal Spot Size:	3x3
Film Type, Brand and Size :	KODAK AA400,360x100			Ref:	ASTM 1C.16		
Screens Type and Thickness :	Pb,0.05/0.20			Material Thickness:	50 - 70		
Density :	1.5-4.0	Source Film Distance :	450MM	Exposure Time:	5 min - 30 s		

Evaluation standard for steel castings radiographic examination (See Book)	Acceptance Standard
Sketch of geometric arrangement of radiographs and location markers in attached form	ASME B 16.34

Identification	Interval	Viewing	Evaluation	Observed Defects							
				Porosity	Sand	Shrinkage	Cracks	Hot Tears	Others	Suppl	Accepted
R1	1-2		II	/	/	/	/	/	/	I	OK
R2	2-3		II	/	/	/	/	/	/	I	OK
R3	3-4		II	/	/	/	/	/	/	I	OK
R4	4-5		II	/	/	/	/	/	/	I	OK
R5	5-6		II	/	/	/	/	/	/	I	OK
R6	6-1		II	/	/	/	/	/	/	I	OK
R7	7-8		II	/	/	/	/	/	/	I	OK
R8	8-9		II	/	/	/	/	/	/	I	OK
R9	9-10		II	/	/	/	/	/	/	I	OK
R10	10-6		II	/	/	/	/	/	/	I	OK
R11	11-12		II	/	/	/	/	/	/	I	OK
R12	12-7		II	/	/	CA2	/	/	/	II	OK
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*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los certificados correspondientes, que abran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that material described above, have been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding certificates, which are field in our factory, emitted by homologated suppliers.



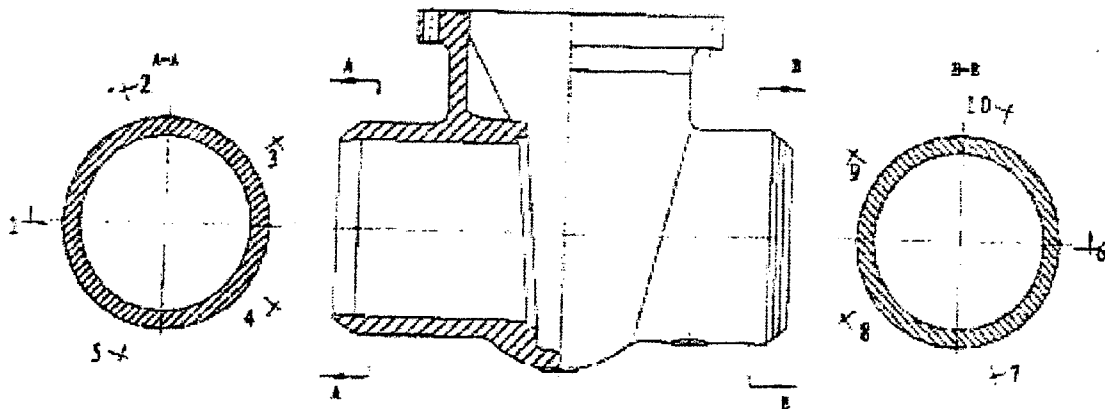
 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
	PHONE:	+ (34) 94. 455. 51. 51
	FAX:	+ (34) 94. 455. 51. 50
	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC MAP

Page: 2 / 2

Procedure:	ASME B 16.34		
Customer:	VALVES ENTREPRISE, S.L.	Heat:	K40054
Contract:	P-10005-4019	Part No:	W6333
Drawing:	600LB 16"	Descriptions:	GATE BODY

Radiography No.	Type and Size of Film	Thickness	Source	I.Q.I.	Focus-Film Distance	Density	Back Shielding
R1-R12	KODAK AA400	50 - 70	IR 192	ASTM 1C.16	450MM	1.5-4.0	Pb
*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****





Material & Test Certificates Valves

Client : Lurgi Oel und Gas Chemie GmbH
Lurgi-Order-No. : 4568444
Siekmann-Order-No.: 8035036

CERTIFICATE-NO.: 110-1

Lurgi-Item-No.	Lurgi-I.D.	Pieces	Remarks
110	10SPP084	1	

Date 21.03.05
Siekmann Econosto GmbH & Co. KG



QM Meiningen Oestreich

If you need any Spare Parts or
technical support please contact:

Siekmann Econosto GmbH & Co. KG
P.O. Box 150440, D-44344 Dortmund
Freigrafenweg 2, D-44357 Dortmund
Germany

Tel.: 0049 - 231 937 50
Fax : 0049 - 231 937 5188
E-mail: info@siekmann-econosto.de
Web: www.siekmann-econosto.de

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER		CERTIFICATE acc. to EN 10204 - 3.1.B.	CERT No.: SVR-3254-11
			REV.:
			DATE: 04/02/05

CONFORMITY AND GUARANTEE TEST CERTIFICATE

CLIENT: SEKMANN	P.O. No.: 90050090P	LURGI ITEM: 00110	SERIAL No.:
LURGI Ref.: 4568444-000/1.69690/136	V.E. Ref.: 10005-4019		
SVR Ref.: OF-3254	LURGI IDENT.NO: 10SPPO84	QUANTITY: 1	
FIGURE NO.: 1.600 BW	DESCRIPTION: 16" -600 Lbs. GATE VALVE	ENDS: FLANGE () BUTT WELD (X)	

DESIGN AND TEST ACCORDING TO:

API 600	☒	API 598	☒	BS 6755 Part. 1 rate B		DIN 3230 - 3		MSS - SP 82		NACE MR 0175	
OTHERS : B16.25 B16.10											

TYPE OF TEST	SHELL & PACKING 100%	SEAT (WATER) 100%HP	BACKSEAT (WATER) 100% HP	SEAT (AIR) LP
DURATION (Sec)	300	120	60	120
PRESSURE (Kg/cm ²)	150	110	110	4-7
RESULT	SATISFACTORY	SATISFACTORY	SATISFACTORY	SATISFACTORY
MANOMETER SERIAL.: ----- SVR-1098-----				

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that all valves described above are in compliance with purchase order and specification requirements. This test report represents the actual attributes of the valves furnished and the test results are in compliance with the applicable specification and purchase order requirements.

TEST REPORT EN 10204 - 3.1.B.

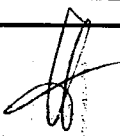
BODY & BONNET	ASTM A 216 WCB		
WEDGE	ASTM A 216 WCB + STL Overlay		
BODY RING	ASTM A 105 + STL Overlay		
STEM	ASTM A 105		
PACKING	GRAPHITE		
GASKET	SPW 304 + GRAPHITE		
BOLTING	A 193 B7 / A 194 Gr.2H		

V.R. SPECIALTY VALVES RESEARCH, S.A. certifies that the above items are in full compliance with the listed material specifications and all purchase order requirements, giving a guarantee of the products against any fabrication defects for a period of 12 months from expedition date.

DIMENSIONAL EXAMINATION: ACCEPTABLE	VISUAL EXAMINATION: MSS SP 55 ACCEPTABLE	MARKING: MSS SP 25 ACCEPTABLE
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FOUNDRY MILL CERTIFICATE NUMBERS

BODY, BONNET, & WEDGE: **W6334**

QUALITY CONTROL MANAGER:  04 FEB 2005	CLIENT'S INSPECTOR:
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SPECIALTY VALVES RESEARCH, S.A.
VALVES MANUFACTURER

MATERIAL CERTIFICATES
CERTIFICADO DE INSPECCION s/
INSPECTION CERTIFICATE Acc. To

Nº/Nr.: W6334

FECHA:

DATE: 17/12/04

Cliente/Cient.:

VALVES ENTREPRISE
LAS MERCEDES NO. 23 - 6º
EDIFICIO ABRA NO.1
48930 LAS ARENAS -BIZKAIA-

Pedido Nº

Purchase Order: P-10005-4019

Cantidad:

Quantity: 3

Anagrama del Fabricante / sello del Inspector:
Manufacturer's Logo / Inspector stamp:



TRATAMIENTO TERMICO
HEAT TREATMENT

Normalizado:



Normalized:

Normalizado+Revenido



Normalized+Tempered

Templado+Revenido:



Quenched+Tempered:

Solubilización:



Solution:

H.T. CONDICION
CONDITION T.T.

NORMALIZED 980 °C x 3H

MODO DE FUSION:

INDUCTION MELTING

TYPE OF MELTING:

DENOMINACION DE LA PIEZA:
CASTING DENOMINATION:

Gate Body

16" – 600 Lbs

Heat No.:

K40059

Gate Bonnet

16" – 600 Lbs

Heat No.:

K40054

Gate Wedge

16" – 600 Lbs

Heat No.:

K40053

CALIDAD DE ACERO:
STEEL QUALITY:

ASTM A 216 WCB

CONDICIONES DE ENTREGA:
TERMS OF DELIVERY:

NACE MR 01-75:00

ANÁLISIS QUÍMICO – CHEMICAL ANALYSIS

COLADA HEAT No.	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V		Nº de Piezas Ner. Pieces	Peso kgs. Weight
Solicitado (Norma) Requirements (max)	0.30	0.60	1.00	0.040	0.045	0.50	0.50	0.20	0.30	0.03			
K40059	0.21	0.40	0.79	0.027	0.030	0.07	0.098	0.018	0.015	0.001		1	
K40054	0.21	0.41	0.76	0.021	0.015	0.07	0.144	0.020	0.018	0.001		1	
K40053	0.20	0.32	0.61	0.022	0.017	0.07	0.098	0.013	0.024	0.001		1	

PROPIEDADES MECANICAS / MECHANICAL PROPERTIES Acc. To ASTM A 370

COLADA HEAT No.	Probeta Test Sample	Diametro (mm) Diameter Ø	L. Elástico Yield Point N/mm²	Resistencia Tensile Str. N/mm²	Alargamiento Elongation %	Estricción Red. of Area %	Dureza Hardness HB	Resiliencia Impact Test (ISO V Prob) J; T 20 °C		
Solicitado Requirements	Lo = 4D	12.5	250	485-655	22	35	232	27 J		
K40059	Lo = 4D	12.5	328	530	25	42	150	31	34	40
K40054	Lo = 4D	12.5	285	495	29	39	153	42	30	36
K40053	Lo = 4D	12.5	338	500	26	44	153	36	33	45
Insp. Visual y C. Dimensional Visual Insp. And Dimens check		Ensayo Magnaflux Magnaflux test		Insp. Por Gammagrafia Gammagraphic Inspection		Ensayo de Presión Pressure Test		Insp. Por Ultrasonidos Ultrasonic Test		
S/ MSS-SP-55		Satisfactory								

Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los **certificados 3.1.B.** correspondientes s/ **EN 10204**, que obran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that the material described above, has been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding **3.1.B. certificates** acc. to **EN 10204**, which are filed in our factory, emitted by our homologated suppliers.

Quality Control Department

04 FEB. 2005

 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
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	WEBB:	www.svrvalves.com
	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC EXAMINATION REPORT FOR CASTINGS

Procedure:	ASME B 16.34	Report No.:	W6334
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Page: 1 / 2

Customer :	VALVES ENTREPRISE, S.L.	Contract:	P-10005-4019
Description :	GATE BODY	Extension of Test:	BW-ENDS
Drawing :	600LB 16"	Radiographed at:	Shop: ☒ Field: ☐
Material :	WCB Heat Number: K40059		

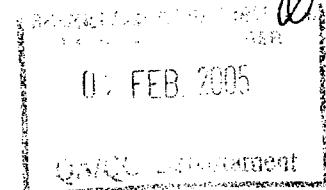
X Rays KV	Γ RAYS	Isotope :	IR 192	Curies:	40	Focal Spot Size:	3x3
Film Type, Brand and Size :	KODAK AA400,360x100			ICG:	ASTM 1C.16		
Screens Type and Thickness :	Pb,0.05/0.20			Material Thickness:	50 - 70		
Density :	1.5-4.0	Source Film Distance :	450MM	Exposure Time:	5 min - 30 s		

Evaluation standard for steel castings radiographic examination (See Back)	Acceptance Standard
Sketch of geometric arrangement of radiographs and location markers in attached form	ASME B 16.34

Identification	Interval	Viewing	Evaluation	Observed Defects							
				Porosity	Sand	Shrinkage	Cracks	Hot Tears	Others	Repaired	Remarks
R1	1-2		II	/	/	/	/	/	/	I	OK
R2	2-3		II	/	/	/	/	/	/	I	OK
R3	3-4		II	/	/	/	/	/	/	I	OK
R4	4-5		II	/	/	/	/	/	/	I	OK
R5	5-6		II	/	/	/	/	/	/	I	OK
R6	6-1		II	/	/	/	/	/	/	I	OK
R7	7-8		II	/	/	/	/	/	/	I	OK
R8	8-9		II	/	/	/	/	/	/	I	OK
R9	9-10		II	/	B2	/	/	/	/	II	OK
R10	10-6		II	/	/	/	/	/	/	I	OK
R11	11-12		II	/	/	/	/	/	/	I	OK
R12	12-7		II	/	/	/	/	/	/	I	OK
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Certificamos que el material descrito aquí ha sido ensayado y cumple con los requisitos solicitados por el cliente. Los resultados arriba indicados son fiel reflejo de los certificados correspondientes, que abran en nuestro poder, emitidos por los suministradores homologados.

We hereby certify that material described above, have been tested and complies to the material requirements of the purchase order. The results above indicated are exact transcription from the corresponding certificates, which are field in our factory, emitted by homologated suppliers.



 SPECIALTY VALVES RESEARCH, S.A. VALVES MANUFACTURER	ADDRESS:	ARETXALDE, 150 48196 LEZAMA -BIZKAIA- (SPAIN)
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	E-mail:	webmaster@svrvalves.com

RADIOGRAPHIC MAP

Page: 2 / 2

Procedure:	ASME B 16.34		
Customer:	VALVES ENTREPRISE, S.L.	Heat:	K40059
Contract:	P-10005-4019	Part No:	W6334
Drawing:	600LB 16"	Descriptions:	GATE BODY

Radiography No.	Type and Size of Film	Thickness	Source	I.Q.I.	Focus-Film Distance	Density	Back Shielding
R1-R12	KODAK AA400	50 - 70	IR 192	ASTM 1C.1E	450MM	1.5-4.0	Pb
*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****

